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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,763	10/22/2003	Jerry D. Burchfiel	BBNT-P01-238	6023

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EXAMINER
TRAN, TUAN A

ART UNIT	PAPER NUMBER
2618	

MAIL DATE	DELIVERY MODE
10/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/689,763

Applicant(s)

BURCHFIEL, JERRY D.

Examiner

Tuan A. Tran

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-97 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-97 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-25, drawn to a method for managing interference in a radio communication network comprising the step of instructing, by a first node, a second node in the network to avoid using transmission frequency corresponding to a non-positive power differential in a plurality of power differentials to transmit to the first node, classified in class 455, subclass 69.
- II. Claims 26-31, drawn to a method of managing interference in a communication network comprising the steps of: dividing a multiplicity of nodes into a plurality of node clusters; assigning a unique receiving frequency to each node in at least one of the node cluster; and assigning a unique transmission frequency to each antenna in the set of antennas attached to a first node in the at least one node cluster, classified in class 455, subclass 450.
- III. Claims 32-42, drawn to a radio communication device comprising a receiver and a receiver, coupled to the receiver, configured to detect in the aggregated radio signal a transmission signal addressed to the radio communication device and to discard any portion of the transmission signal carried on a frequency corresponding to an unacceptable

- transmission frequency in the set of unacceptable transmission frequency, classified in class 455, subclass 226.1.
- IV. Claims 43-82, drawn to a method of managing co-sire interference in a wireless network comprising the step of identifying a subset of nodes within a multiplicity of nodes, wherein each node in the subset is capable of transmitting data to each other node in the subset in accordance with a connectivity threshold and using a power setting that falls within a low power range, classified in class 455, subclass 63.1.
- V. Claims 83-86, drawn to a wireless network comprising the step of select a node in a cluster to act a long-range transmission manager, wherein the long-range transmission manager is configured to permit only one member of the cluster at a time to transmit using any power setting that falls outside the low power range, classified in class 455, subclass 41.2.
- VI. Claims 87-90, drawn to a radio communication device comprising a MAC controller configured to receive a plurality of request from a multiplicity of other radio communication devices to transmit a power that falls within a high power range, classified in class 455, subclass 561.
- VII. Claims 91-97, drawn to a wireless communication network comprising a multiplicity of nodes and configured to transmit a data stream along a route from a source node to a destination node in the network according to a routing protocol, classified in class 455, subclass 445.

2. The inventions are distinct, each from the other because of the following reasons:
3. Inventions [I] to [VII] are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention [I] has separate utility such as the step of instructing, by a first node, a second node in the network to avoid using transmission frequency corresponding to a non-positive power differential in a plurality of power differentials to transmit to the first node or invention [II] has separate utility such as dividing a multiplicity of nodes into a plurality of node clusters; assigning a unique receiving frequency to each node in at least one of the node cluster; and assigning a unique transmission frequency to each antenna in the set of antennas attached to a first node in the at least one node cluster or each of the invention [III] to invention [VII] has separate utility as specified above. See MPEP § 806.05(d).
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at

least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even through the requirement be traversed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Tran whose telephone number is (571) 272-7858. The examiner can normally be reached on Mon-Fri, 10:00AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tuan Tran
AU 2618